WHAT IS CLAIMED IS:

Subcl7

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- 1. A semiconductor laser diode chip comprising:
- a first mark formed at a predetermined position with respect to an active layer on a face opposed to a substrate to which the chip is mounted; and
- a second mark that satisfies a predetermined relative position relation to said first mark and is positioned oppositely to a substrate-side mark formed on said substrate at mounting time to said substrate.
- 2. A semiconductor laser diode chip as claimed in claim 1, wherein

said first mark is constructed by a thin line pattern formed along said active layer in the vicinity of this active layer.

3. A semiconductor lasef diode chip as claimed in claim 2, wherein

said thin line pattern is constructed by a metallic film formed in plural thin parallel straight lines.

4. A semiconductor laser diode chip as claimed in claim 1, wherein

said first mark is constructed by a thin line formed on an upper portion of said active layer.

5. A semiconductor laser diode chip as claimed in claim 4, wherein

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said mark for measurement has approximately the same

width as that of said active layer.

6. A semiconductor laser diode chip as claimed in claim 1, wherein

said second mark is constructed by a pair of marks formed on both sides of said active layer.

7. A semiconductor laser diode chip as claimed in claim 6, wherein

said second mark has a circular shape.

8. A semiconductor laser diode chip as claimed in claim 7, wherein

said substrate side mark has a circular shape having a diameter different from that of said second mark.

- 9. A semiconductor laser diode chip as claimed in claim 1, wherein
- a plurality of said substrate side marks and a plurality of said second marks are formed, respectively.
- 10. A mounting method of a semiconductor laser diode chip having an active layer, for mounting the SEMICONDUCTOR LASER DIODE chip to a substrate at its predetermined position;

said semiconductor laser diode comprising:

- a first mark formed in the vicinity of said active layer; and
- a second positioning mark with respect to said substrate;

25 said substrate having a substrate side mark formed at a

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position opposed to said second mark when said semiconductor laser diode chip is arranged in the predetermined position; the mounting method including:

- a process for measuring a position relation of said active layer and said second mark;
- a process for setting said second mark and said substrate side mark to be opposed to each other and arranging said semiconductor laser diode chip in said substrate; and
- a process for correcting the position of said semiconductor laser diode chip on the basis of said position relation and fixing said semiconductor laser diode chip to said substrate.
- 11. A mounting method of a semiconductor laser diode chip as claimed in claim 10, wherein
- said second mark is constructed by a thin line pattern formed along said active layer in the vicinity of this active layer.
 - 12. A mounting method of a semiconductor laser diode chip as claimed in claim 11, wherein
- said thin line pattern is constructed by a metallic film formed in plural thin parallel straight lines.
 - 13. A mounting method of a semiconductor laser diode chip as claimed in claim 10, wherein

said second mark is constructed by a thin N ine formed at an upper portion of said active layer.

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14. A mounting method of a semiconductor laser diode chip as claimed in claim 13, wherein

said second mark has approximately the same width as that of said active layer.

5 15. A mounting method of a semiconductor laser diode chip as claimed in claim 9, wherein

said first mark is constructed by a pair of marks formed on both sides of said active layer.

16. A mounting method of a semiconductor laser diode chip as claimed in claim 15, wherein

said first mark has a circular shape.

17. A mounting method of a semiconductor laser diode chip as claimed in claim 15, wherein

said substrate side mark has a circular shape having a diameter different from that of said second mark.

18. A mounting method of a semiconductor laser diode chip as claimed in claim 10, wherein

each of said first and second marks is constructed by a metallic thin film and is formed by the same process.

20 19. A mounting method of a semiconductor laser diode chip as claimed in claim 10, wherein

said substrate has a V-groove the center of which coincides with the central axis of said active layer.

20. A mounting method of a semiconductor laser diode chip as claimed in claim 10, wherein

a plurality of said substrate side marks and a plurality of said second marks are formed, respectively.

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